

GenCore version 4.5  
Copyright (c) 1993 - 2000 Compugen Ltd.

## Om protein - protein search, using sw model

Run on: September 4, 2002, 16:13:04 ; Search time 101.54 Seconds  
 Sequence: 1 RALCTICSDFFDHSDVAAM.....IQSFETAPSRTCPQCRIQVG 51  
 Scoring table: BLASTN62  
 Gapop 10.0 , Gabext 0.5

Searched: 283138 seqs, 96089334 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : PIR\_71; \*  
 1: P1x1; \*  
 2: P1x2; \*  
 3: P1x3; \*  
 4: P1x4; \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	225	78.7	433	2 T30807	TRAF interacting protein - Fugu rubripes
2	114	39.9	310	2 C84701	C;Species: Fugu rubripes C;Date: 02-Sep-2000 #sequence_revision 02-Sep-2000 #text_change 02-Sep-2000
3	113	39.5	158	2 T13738	R;Cottage, A.J.; Clark, M.; Hawker, K.; Umrania, Y.; Wheeler, D.; Bishop, M.; Elgar, FEBS Lett. 443, 370-374, 1999
4	112	39.5	325	2 F6A321	A;Title: Three receptor genes for Plasminogen related growth factors in the genome of
5	103	36.0	344	2 T05054	A;Reference number: Z20880; NUID:99148833
6	102	35.7	324	2 E84918	A;Accession: T30807
7	101	35.3	274	2 T48296	A;Status: preliminary; translated from GB/EMBL/DDJB
8	100	35.0	224	2 E86321	A;Molecule type: DNA
9	99	34.6	524	2 F96572	A;Residues: 1-433 <COT>
10	98	34.3	383	2 F2H5_19	A;Cross-references: EMBL:AJ010317; NID:e1355235; PID:e1355237; PIDN:CAA09084.1
11	95.5	33.4	506	2 F85016	C;Genetics:
12	95	33.2	351	2 F96597	A;Gene: TRIP
13	94	32.9	137	2 T46904	C;Introns: 33/2; 52/3; 80/3; 94/1; 136/3; 168/2; 206/2; 235/3; 265/3; 310/1; 352/3; 3
14	93	32.5	551	2 S66695	RESULT 2
15	92.5	32.3	408	2 T25524	C;Species: Arabidopsis thaliana (mouse-ear cress)
16	92.5	32.3	624	2 S66418	C;Accession: C84701 C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 02-Feb-2001
17	92	32.2	489	2 T26069	R;Lin, X.; Kaul, S.; Rounseley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanaken, S.E.; Umayam, L.; Talon, D.; Niezman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter Nature 426, 761-763, 1999
18	91.5	32.0	441	2 F71425	A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
19	90.5	31.6	206	2 C85067	A;Reference number: A84420; NUID:20083487
20	90	31.5	190	2 T51859	A;Accession: C84701
21	90	31.5	367	2 H96764	A;Status: preliminary
22	89	31.1	292	2 T06684	A;Molecule type: DNA
23	89	31.1	425	2 T25457	A;Residues: 1-310 <STO>
24	88.5	30.9	405	2 A2809	A;Cross-references: GB:AE002093; NID:93582320; PIDN:AC35217.1; GSPDB:GN00139
25	87.5	30.6	157	2 T13027	C;Genetics:
26	87.5	30.6	157	2 T51841	C;Map position: 2
27	87.5	30.6	194	2 C85130	RING-H2 finger pro
28	87.5	30.6	203	2 T48129	hypothetical protein
29	87.5	30.6	425	2 A84849	probable RING zinc

## ALIGNMENTS

30	86.5	30.2	477	2 JE0343	terf protein - rat nuclear phosphopro
31	86.5	30.2	609	2 A43006	probable RING zinc
32	86	30.1	407	2 G96335	hypothetical prote
33	86	30.1	1238	2 T1519	probable RING-H2 z
34	85.5	29.9	227	2 T00428	hypothetical prote
35	85.5	29.9	1610	2 T11681	hypothetical prote
36	85	29.7	204	2 G84530	probable RING zinc
37	85	29.7	343	2 H96703	hypothetical prote
38	85	29.7	362	2 G84226	hypothetical prote
39	84.5	29.5	225	2 T04066	hypothetical prote
40	84.5	29.5	236	2 T04065	RING zinc finger p
41	84	29.5	324	2 T08729	nicotinic acetylch
42	84.5	29.5	412	2 S45064	ret finger protein
43	84	29.4	513	1 TVRURF	hypothetical prote
44	84	29.4	610	2 T22687	transforming prote
45	84	29.4	801	4 TVHURE	

Best Local Similarity 39.6%; Pred. No. 2e-06; Mismatches 16; Indels 2; Gaps 1;

Matches 19; Conservative 11; Mismatches 16; Indels 2; Gaps 1;

RESULT 3

T13738 hypothetical protein 2E5.12 - fruit fly (*Drosophila melanogaster*)

C;Date: 13-Aug-1999 #sequence\_revision 13-Aug-1999 #text\_change 17-Nov-2000

C;Accession: T13738 R; Murphy, L.; Harris, D.; Barrell, B.

C;Species: *Drosophila melanogaster* submitted to the EMBL Data Library, April 1999

A;Description: Sequencing the distal X chromosome of *Drosophila melanogaster*.

A;Reference number: Z17668

A;Accession: T13738 A;Status: preliminary; translated from GB/EMBL/DDJB

A;Molecule type: DNA A;Residues: 1-158 <NUR>

A;Cross-references: EMBL:AL031765; NID:e1371523; PID:e1326038; PIDN:CAB41708.1 C;Genetics: F;454/Domain: RING finger homology <RRN>

A;Cross-references: FlyBase:FBgn0000667 A;Introns: 41/2 A;Note: EG:22E5.12 C;Superfamily: RING finger homology <RRN>

RESULT 4

Query Match 39.5%; Score 113; DB 2; Length 158; Best Local Similarity 48.9%; Pred. No. 1.5e-06; Matches 23; Conservative 4; Mismatches 18; Indels 2; Gaps 1;

QY 3 LCTICSDFFDHSDVAAMDCGHTFHLOCLIQSFETAPSRTCPQCRIQ 49 Db 7 ITCICSERFTSDNTIQAGSCGHAFHEDCL--DHARKQSRTCPICRSQ 51

F6A14.12 protein - *Arabidopsis thaliana* (mouse-ear cress)

C;Species: *Arabidopsis thaliana* (mouse-ear cress) C;Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 09-Nov-2001

C;Accession: F86321 R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Fedderspiel, N.A.; Kaul, S.; White, O.; Alonso, C.H.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, R.; Hansen, N.P.; Hughes, B.; Huizar, L. Nature 408, 816-820, 2000

A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. Nature 402, 761-763, 1999

A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, K.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Title: Sequence and analysis of chromosome 2 of the plant *Arabidopsis thaliana*. A;Reference number: A84420; NID:20083487

A;Accession: F86321 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-324 <STO>

A;Cross-references: GB:AE002093; NID:93738284; PIDN:AAC63626.1; GSDB:GN00139 C;Genetics: A;Gene: At2g47700 A;Map position: 2

RESULT 5

T05054 hypothetical protein M3E9.170 - *Arabidopsis thaliana* (mouse-ear cress)

C;Date: 23-Apr-1999 #sequence\_revision 23-Apr-1999 #text\_change 02-Sep-2000

C;Accession: T05054 R;Bevan, M.; Vandebol, M.; Jallet, C.; Portetelle, D.; Hoheisel, J.; Meves, H.W.; Ma submitted to the Protein Sequence Database, March 1999

A;Reference number: Z15396 A;Accession: T05064 A;Molecule type: DNA A;Residues: 1-344 <CBEV>

A;Cross-references: EMBL:AL022223 A;Experimental source: cultivar Columbia; BAC clone M3E9 C;Genetics: A;Map position: 4 A;Note: M3E9.170 C;Superfamily: RING finger homology <RRN> F;225-275/Domain: RING finger homology <RRN>

Query Match 36.0%; Score 103; DB 2; Length 344; Best Local Similarity 38.3%; Pred. No. 4.8e-05; Matches 18; Conservative 8; Mismatches 19; Indels 2; Gaps 1;

QY 4 CTICSDFFDHSDVAAMDCGHTFHLOCLIQSFETAPSRTCPQCRIQ 50 Db 229 CSICIDDFRGKSEKEMPKKFIRCTVWLIEHSS--CPVYREL 273

RESULT 6

E84918 hypothetical protein At2g47700 [imported] - *Arabidopsis thaliana* (mouse-ear cress)

C;Species: *Arabidopsis thaliana* (mouse-ear cress) C;Accession: E84918 R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, Y.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter Nature 402, 761-763, 1999

A;Title: Sequence and analysis of chromosome 2 of the plant *Arabidopsis thaliana*. A;Reference number: A84420; NID:20083487

A;Accession: E84918 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-324 <STO>

A;Cross-references: GB:AE002093; NID:93738284; PIDN:AAC63626.1; GSDB:GN00139 C;Genetics: A;Gene: At2g47700 A;Map position: 2

Query Match 35.7%; Score 102; DB 2; Length 324; Best Local Similarity 41.3%; Pred. No. 6e-05; Matches 19; Conservative 6; Mismatches 19; Indels 2; Gaps 1;

QY 4 CTIC--SDFDHSDVAAMDCGHTFHLOCLIQSFETAPSRTCPQCRIQ 47 Db 38 CSICLESVHDGGTRSKAKIQLQGHOFLDCCIGSAFNMKGAMQCPNCR 83

RESULT 7

T48296 hypothetical protein F9G14.60 - *Arabidopsis thaliana* (mouse-ear cress)

C;Species: *Arabidopsis thaliana* (mouse-ear cress) C;Date: 20-Apr-2000 #sequence\_revision 20-Apr-2000 #text\_change 02-Sep-2000

C;Accession: T48296 R;Bevan, M.; Terry, N.; Ardiles, W.; Buyshaert, C.; Dasseville, R.; De Clerck, R.; Ewes, H.W.; Rudd, S.; Lemcke, K.; Mayer, K.F.K. submitted to the Protein Sequence Database, April 2000

A;Reference number: Z24491







A;Status: preliminary; translated from GB/EMBL/DDBJ	Qy	4 CTICSDFFHSRDAAMDCGHTFHQLCISFRETAPSRTCPQR 47	Query Match 31.5%; Score 90; DB 2; Length 190;
A;Molecule type: mRNA	Db	136 CCVCQEYTYEGEDMGTLLEGHFSQCIEWLK--QXNLCPICK 177	Best Local Similarity 29.5%; Pred. No. 0.0011; Matches 13; Conservative 10; Mismatches 19; Indels 2; Gaps 1;
A;Residues: 1-190 <JEN>			
A;Cross-references: EMBL:AF079183; PIDN: AAC69857.1			
A;Cross-references:			
RESULT 21			
H96764			protein RING zinc finger protein F25P22.18 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)			hypothetical protein B0432.9 - Caenorhabditis elegans
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001			C;Species: Caenorhabditis elegans
C;Accession: H96764			C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 02-Sep-2000
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Fedderspiel, N.A.; Kaul, S.; White, O.; Alonso, C.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Chin, C.W.; Rizzo, M.; Rooney, T.; Rovley, D.; Sakano, H.			R;Accession: T25457
A;Authors: Salberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, K.; Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Wenter, J.C.; Davis, R.W.			R;Henkhaus, J.; Woldmann, P.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.			submitted to the EMBL Data Library, December 1996
A;Reference number: A86141; MUID:21016719			A;Description: The sequence of C. elegans cosmid B0432.
A;Status: preliminary			A;Reference number: 220038
A;Molecule type: DNA			A;accession: T25457
A;Residues: 1-567 <SRO>			A;Species: preliminary; translated from GB/EMBL/DDBJ
A;Cross-references: GB:AE005173; NTID:96692739; PIDN:AAF24845.1; GSPDB:GN00141			A;Molecule type: DNA
C;Genetics:			A;Residues: 1-425 <HEN>
A;Gene: F25P22.18			A;Cross-References: EMBL:U80036; PIDN:AB31893.1; GSPDB:GN00020; CESP:B0432.9
A;Map position: 1			A;Experimental source: strain Bristol N2; clone B0432
RESULT 22			C;Genetics:
Query Match 31.5%; Score 90; DB 2; Length 367; Best Local Similarity 34.1%; Pred. No. 0.0019; Matches 15; Conservative 8; Mismatches 19; Indels 2; Gaps 1; C;Species: Arabidopsis thaliana (mouse-ear cress)	Qy	4 CTICSDFFHSRDAAMDCGHTFHQLCISFRETAPSRTCPQR 47	A;Gene: CESP:B0432.9
C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 02-Sep-2000	Db	319 CTICDQEYEADEVEGLRCGHFRHIDCVNQWL--VRKNSCPCK 360	A;Map position: 2
C;Accession: T06684			A;Introns: 64/3; 99/3; 165/1; 267/3; 350/2; 386/2
R;Quetier, F.; Choisne, N.; Robert, C.; Brottier, P.; Wincker, P.; Cattolico, L.; Artigau, A.; Reference number: 215793			C;Superfamily: RING finger homology <RRN>
A;Accession: T06684			F;188-238/Domain: RING finger homology <RRN>
A;Molecule type: DNA			
A;Residues: 1-567 <SRO>			
A;Cross-references:			
RESULT 23			
Query Match 31.1%; Score 89; DB 2; Length 425; Best Local Similarity 36.4%; Pred. No. 0.0029; Matches 16; Conservative 8; Mismatches 18; Indels 2; Gaps 1; C;Species: Arabidopsis thaliana (mouse-ear cress)	Qy	4 CTICSDFFHSRDAAMDCGHTFHQLCISFRETAPSRTCPQR 47	
C;Date: 19-May-1989 #sequence_revision 12-Mar-1993 #text_change 01-Dec-2000	Db	192 CTICDFDLKQNDKTSATIVCGHIYHNGCISQWIAK-KROCPSCR 233	
C;Accession: A28009; B60088; 150550; 150551			
R;Carr, C.; McCourt, D.; Cohen, J.B.			
Biochemistry 26, 7090-7102, 1987			
A;Title: The 43-kilodalton protein of Torpedo nicotinic postsynaptic membranes: purification and characterization			
A;Reference number: A28009; MUID:88107644			
A;Accession: A28009			
A;Molecule type: protein			
A;Residues: 1-386, 'D' 388-403, 'T' 405 <CA2>			
R;Baldwin, T.J.; Theriot, J.A.; Yoshihara, C.M.; Burden, S.J.			
Development 104, 557-564, 1988			
A;Title: Regulation of protein encoding the 43K subsynaptic protein during development			
A;Reference number: A60088; MUID:90032364			
A;Accession: B60088			
A;Status: nucleic acid sequence not shown; not compared with conceptual translation			
A;Molecule type: mRNA			
A;Residues: 1-392 <QUE>			
A;Map position: 3			
A;Cross-references: EMBL:AL049658; GSPDB:GN00061; ATSP:T17F15.140			
A;Experimental source: cultivar Columbia; BAC clone T17F15			
C;Genetics:			
A;Gene: ATSP:T17F15.140			
A;Residues: 1-292 <QUE>			
A;Introns: 37/3; 68/3; 90/3; 143/3; 181/3			
C;Superfamily: RING finger homology			
A;Molecule type: mRNA			
A;Residues: 'MGQDK' 1-354, 'Y' 356-382 <FRX>			

A; molecule type: mRNA; translated from GB/EMBL/DDJB  
A; residues: 364-405 <FR2>  
A; cross-references: GB:J02953; NID:9213242; PIDN:AAA49283\_1; PID:9213243  
C; comment: this protein is present in the postsynaptic apparatus at equimolar amounts with  
C; keywords: alternative splicing; cytoskeleton; membrane protein; phosphoprotein

Query Match 30.9%; Score 88.5; DB 2; Length 405;  
Best Local Similarity 35.6%; Pred. No. 0.0032; R; Mismatches 9; Indels 5; Gaps 2;  
Matches 16; Conservative 9; Mismatches 15; Indels 5; Gaps 2;

Qy 4 CTICSDFF--DHSRDAAMDCGHTPHLQLIOSFETAPSRTCPQCRIQV 47  
Db 356 CGLGESIQQDQNSQLQALPCSHLFHLKCL---QTNGNRGCPNCK 396

RESULT 25  
T13027 RING-H2 finger protein Rhalb - Arabidopsis thaliana  
N; alternate names: protin F8L21.150  
C; species: Arabidopsis thaliana (mouse-ear cress)  
C; date: 13-Aug-1999 #sequence\_revision 13-Aug-1999 #text\_change 02-Sep-2000  
C; accession: T13027  
R; Bevan, M.; Peters, S.A.; van Staveren, M.; Dirks, W.; Stiekema, W.; Bancroft, I.; Menken, B.; reference number: 217587  
A; molecule type: DNA  
A; residues: 1-194 <BEV>  
A; cross-references: EMBL:AL096882; GSPPB:GN00062; ATSP:F8L21.150  
A; experimental source: cultivar Columbia; BAC clone F8L21  
A; genetics:  
A; gene: ATSP:F8L21.150  
A; map position: 4  
A; superfamily: RING finger homology <RRN>  
F; 81-134/Domain: RING finger homology

Query Match 30.6%; Score 87.5; DB 2; Length 194;  
Best Local Similarity 34.0%; Pred. No. 0.0022; R; Mismatches 8; Indels 5; Gaps 2;  
Matches 17; Conservative 8; Mismatches 20; Indels 5; Gaps 2;

Qy 4 CTICSDFF--DHSRDAAMDCGHTPHLQLIOSFETAPSRTCPQCRIQV 50  
Db 145 CSICLSELVSGPKPRDIRTMCSHVHNGCLLEWLKR--KNTCPCLRCTEL 192

RESULT 26  
T51841 RING-H2 finger protein RHALb [imported] - Arabidopsis thaliana  
C; species: Arabidopsis thaliana (mouse-ear cress)  
C; date: 18-Aug-2000 #sequence\_revision 18-Aug-2000 #text\_change 18-Aug-2000  
C; accession: T51841  
R; Jensen, R.B.; Jensen, K.L.; Jespersen, H.M.; Shriver, K.  
FEBs Lett. 436, 285-7, 1998  
A; title: widespread occurrence of a highly conserved RING-H2 zinc finger motif in the nc  
A; reference number: Z13771; MUID:98452956  
A; accession: T51841  
A; status: preliminary; translated from GB/EMBL/DDJB  
A; molecule type: mRNA  
A; residues: 1-157 <JEN>  
A; cross-references: EMBL:AF078821; PIDN: AAC68670\_1  
A; experimental source: cultivar Columbia

RESULT 26  
T51841 RING-H2 finger protein RHALb [imported] - Arabidopsis thaliana  
C; species: Arabidopsis thaliana (mouse-ear cress)  
C; date: 18-Aug-2000 #sequence\_revision 18-Aug-2000 #text\_change 18-Aug-2000  
C; accession: T51841  
R; Jensen, R.B.; Jensen, K.L.; Jespersen, H.M.; Shriver, K.  
FEBs Lett. 436, 285-7, 1998  
A; title: widespread occurrence of a highly conserved RING-H2 zinc finger motif in the nc  
A; reference number: Z13771; MUID:98452956  
A; accession: T51841  
A; status: preliminary; translated from GB/EMBL/DDJB  
A; molecule type: mRNA  
A; residues: 1-157 <JEN>  
A; cross-references: EMBL:AF078821; PIDN: AAC68670\_1  
A; experimental source: cultivar Columbia

RESULT 27  
T48129 hypothetical protein T4C9.30 - Arabidopsis thaliana  
C; species: Arabidopsis thaliana (mouse-ear cress)  
C; date: 20-Apr-2000 #sequence\_revision 20-Apr-2000 #text\_change 18-Aug-2000  
C; accession: T48129  
R; Bevan, M.; Peters, S.A.; van Staveren, M.; Dirks, W.; Stiekema, W.; Bancroft, I.; Menken, B.; reference number: Z24485  
A; accession: T48129  
A; status: preliminary  
A; molecule type: DNA  
A; residues: 1-203 <BEV>  
A; cross-references: EMBL:AL080318  
A; experimental source: cultivar Columbia; BAC clone T4C9  
A; genetics:  
A; map position: 4  
A; introns: 9/3  
A; note: T4C9.30  
C; superfamily: Arabidopsis thaliana hypothetical RING finger protein T4C9.30  
F; 150-203/Domain: RING finger homology <RRN>

Query Match 30.6%; Score 87.5; DB 2; Length 203;  
Best Local Similarity 34.0%; Pred. No. 0.0023; R; Mismatches 8; Indels 5; Gaps 2;  
Matches 17; Conservative 8; Mismatches 20; Indels 5; Gaps 2;

Qy 4 CTICSDFF--DHSRDAAMDCGHTPHLQLIOSFETAPSRTCPQCRIQV 50  
Db 154 CSICLSELVSGPKPRDIRTMCSHVHNGCLLEWLKR--KNTCPCLRCTEL 201

RESULT 29  
A84849 probable RING zinc finger protein [imported] - Arabidopsis thaliana  
C; species: Arabidopsis thaliana (mouse-ear cress)  
C; date: 02-Feb-2001 #sequence\_revision 02-Feb-2001 #text\_change 02-Feb-2001  
C; accession: A84849  
R; Lin, X.; Kaul, S.; Rounseley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; Talon, M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanken, S.E.; Umayam, L.; Tally, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venet, C; accession: C85130  
R; anonymous, The European Union Arabidopsis Genome Sequencing Consortium, The Cold Spring Harbor Laboratory, Nature 402, 769-777, 1999  
A; title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana.  
A; reference number: A85001; MUID:20083488  
A; accession: C85130  
A; status: preliminary  
A; molecule type: DNA  
A; residues: 1-194 <STO>  
A; cross-references: GB:NC\_001268; NID:9267920; PIDN: CAB78262\_1; GSPPB:GN00140  
A; genetics:  
A; gene: At4g12190  
A; map position: 4  
A; superfamily: Arabidopsis thaliana hypothetical RING finger protein F16J13.210; RING finger protein T4C9.30

Query Match 30.6%; Score 87.5; DB 2; Length 194;  
Best Local Similarity 34.0%; Pred. No. 0.0022; R; Mismatches 8; Indels 5; Gaps 2;  
Matches 17; Conservative 8; Mismatches 20; Indels 5; Gaps 2;

Qy 4 CTICSDFF--DHSRDAAMDCGHTPHLQLIOSFETAPSRTCPQCRIQV 50  
Db 154 CSICLSELVSGPKPRDIRTMCSHVHNGCLLEWLKR--KNTCPCLRCTEL 201



**RESULT 34**

hypothetical protein At2g47560 [imported] - *Arabidopsis thaliana*  
N;Alternative names: hypothetical protein T30B22.14  
C;Species: *Arabidopsis thaliana* (mouse-ear cress)  
C;Date: 01-Feb-1999 #sequence\_revision 01-Feb-1999 #text\_change 16-Feb-2001  
C;Accession: T00428; G34916  
R;Rounsley, S.D.; Lin, X.; Ketchum, K.A.; Crosby, M.L.; Brandon, R.C.; Sykes, S.M.; Masc  
submitted to the EMBL Data Library, October 1998  
A;Description: *Arabidopsis thaliana* chromosome II BAC T30B22 genomic sequence.  
A;Reference number: Z14149  
A;Accession: T00428  
A;Status: translated from GB/EMBL/DDJB  
A;Molecule type: DNA  
A;Residues: 1-227 <R0U>  
A;Cross-references: EMBL:AC002535; NID:92529657; PID:92529671  
A;Experimental source: cultivar Columbia  
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;  
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon,  
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J.  
*Nature* 402, 761-768, 1999  
A;Title: Sequence and analysis of chromosome 2 of the plant *Arabidopsis thaliana*.  
A;Reference number: A84420; MUID:20083487  
A;Accession: G8416  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-227 <STO>  
A;Cross-references: GB:AE002093; NID:92529671; PIDN: AAC62854.1; GSPDB:GN00139  
C;Genetics:  
A;Gene: T30B22.14; At2g47560  
A;Map position: 2  
C;Superfamily: *Arabidopsis* hypothetical protein F19I3.22; RING finger homology  
F;104-155/Domain: RING finger homology <RRN>

**RESULT 35**

Query Match 29.9%; Score 85.5; DB 2; Length 227;  
Best Local Similarity 35.4%; Pred. No. 0.0044; Matches 17; Conservative 8; Mismatches 20; Indels 3; Gaps 2;  
C;Species: Schizosaccharomyces pombe  
C;Accession: T11681  
R;Seeger, K.; Harris, D.; Wood, V.; Rajandream, M.A.; Barrell, B.G.  
submitted to the EMBL Data Library, September 1998  
A;Reference number: 27313  
A;Accession: T11681  
A;Status: preliminary; translated from GB/EMBL/DDJB  
A;Cross-references: EMBL:AL031536; NID:e1319499; PID:al1319508  
C;Genetics:  
A;Map position: IIR  
A;Introns: 10/2  
A;Note: SPBC21D10.09c  
C;Superfamily: RING finger homology <RRN>  
F;1554-1609/Domain: RING finger homology <RRN>

**RESULT 36**

Query Match 29.7%; Score 85; DB 2; Length 343;  
Best Local Similarity 25.5%; Pred. No. 0.0074; Matches 12; Conservative 13; Mismatches 20; Indels 2; Gaps 1;  
C;Species: *Arabidopsis thaliana* (mouse-ear cress)  
C;Date: 02-Feb-2001 #sequence\_revision 02-Feb-2001 #text\_change 02-Feb-2001  
C;Accession: G84530  
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;  
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon,  
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter  
Nature 402, 761-768, 1999  
A;Title: Sequence and analysis of chromosome 2 of the plant *Arabidopsis thaliana*.  
A;Reference number: A84420; MUID:20083487  
A;Accession: G84530  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-204 <STO>  
A;Cross-references: GB:AE002093; NID:94335724; PIDN:AAD17402.1; GSPDB:GN00139  
C;Genetics:  
A;Gene: At2g15580  
A;Map position: 2

**RESULT 37**

Query Match 29.7%; Score 85; DB 2; Length 204;  
Best Local Similarity 34.0%; Pred. No. 0.0046; Matches 16; Conservative 6; Mismatches 23; Indels 2; Gaps 1;  
C;Species: *Arabidopsis thaliana* (mouse-ear cress)  
C;Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 31-Mar-2001  
C;Accession: H96703  
R;Theologis, A.; Becker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alon  
Chin, C.W.; Chung, M.K.; Conin, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar,  
ansen, N.F.; Hughes, B.; Huizar, L.  
*Nature* 408, 816-820, 2000  
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, B.; Kim,  
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Lucas, J.S.; Maiti, R.; Marzia  
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.  
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallo  
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.  
A;Title: Sequence and analysis of chromosomes of *Arabidopsis*.  
A;Reference number: A86141; MUID:21016719  
A;Accession: H96703  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-343 <STO>  
A;Cross-references: GB:AE005173; NID:96553889; PIDN:AAF16555.1; GSPDB:GN00141  
C;Genetics:  
A;Gene: T23K23.8  
A;Map position: 1

**RESULT 38**

Query Match 29.9%; Score 85.5; DB 2; Length 1610;  
Best Local Similarity 36.2%; Pred. No. 0.026; Matches 17; Conservative 5; Mismatches 22; Indels 3; Gaps 1;

G84526 hypothetical protein At2g15260 [imported] - Arabidopsis thaliana  
 C;Species: Arabidopsis thaliana (mouse-ear cress)  
 C;Date: 02-Feb-2001 #sequence\_revision 02-Feb-2001 #text\_change 02-Feb-2001  
 C;Accession: G84526  
 R;Lin, X.; Kauh, S.; Rounseley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;  
 M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanaken, S.E.; Umayan, L.; Talon, L.;  
 euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J.  
 Nature 402, 761-768, 1999  
 A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.  
 A;Accession: A84420; MID:20083487  
 A;Status: preliminary  
 A;Molecule type: DNA  
 A;Cross-references: GB:AE002093; NID:94662636; PIDN:AAD26908.1; GSPDB:GN00139  
 C;Genetics: A;Gene: At2g15260  
 A;Map position: 2

Query Match 29.7%; Score 85; DB 2; Length 362;  
 Best Local Similarity 32.7%; Pred. No. 0.0077; Matches 16; Conservative 6; Mismatches 23; Indels 4; Gaps 1;  
 A;Residues: 1-225 <BEV>  
 A;Cross-references: EMBL:AL049487  
 A;Experimental source: cultivar Columbia; BAC clone F28M11  
 C;Genetics:  
 C;Species: Arabidopsis thaliana (mouse-ear cress)  
 C;Date: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change 02-Sep-2000  
 C;Accession: T04066  
 R;Bevan, M.; Murphy, G.; Ridley, P.; Hudson, S.; Bancroft, I.; Mewes, H.W.; Mayer, K.F.X.  
 submitted to the Protein Sequence Database, March 1999  
 A;Reference number: Z15184  
 A;Accession: T04066  
 A;Molecule type: DNA  
 A;Residues: 1-225 <BEV>  
 A;Cross-references: EMBL:AL049487  
 A;Experimental source: cultivar Columbia; BAC clone F28M11  
 C;Genetics:  
 A;Map position: 4  
 A;Introns: 68/3; 95/2  
 A;Note: F28M11.80  
 C;Superfamily: RING finger homology <RRN>  
 C;Protein domain: RING finger homology <RRN>  
 C;Species: Arabidopsis thaliana (mouse-ear cress)  
 C;Date: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change 02-Sep-2000  
 C;Accession: T04065  
 R;Bevan, M.; Murphy, G.; Ridley, P.; Hudson, S.; Bancroft, I.; Mewes, H.W.; Mayer, K.F.X.  
 submitted to the Protein Sequence Database, March 1999  
 A;Reference number: Z15184  
 A;Accession: T04065  
 A;Molecule type: DNA  
 A;Residues: 1-236 <BEV>

RESULT 39  
 T04066  
 hypothetical protein F28M11.80 - Arabidopsis thaliana

Query Match 3 29.5%; Score 84.5; DB 2; Length 236;  
 Best Local Similarity 31.2%; Pred. No. 0.0061; Matches 15; Conservative 9; Mismatches 21; Indels 3; Gaps 2;  
 Db 122 LCSTICRGALVNENDVQRTLVTKCIVHKFHLDCIGSAYNNAKGFMECPNCR 170

Query Match 29.5%; Score 84.5; DB 2; Length 236;  
 Best Local Similarity 31.2%; Pred. No. 0.0061; Matches 15; Conservative 9; Mismatches 21; Indels 3; Gaps 2;  
 Db 111 CSVCLGDYQAEKILQQMPSCGHFTHMECI--DIWLTSHITCPCLRLSL 156

Search completed: September 4, 2002, 16:13:06  
 Job time: 3250 sec



**THIS PAGE BLANK (USPTO)**